Application No.: 10/562,225 Docket No.: 47100-222154

Response to Office Action mailed March 27, 2008

## **AMENDMENTS TO THE SPECIFICATION**

Please amend the following paragraphs of the specification as indicated below:

[0015] Figures 2a1 to 2a-5, not shown, demonstrate that 5 mM AEC can prevent the germination of soybean seeds; 2.5 mM is quite effective. Figures 2b-1 and 2b-2, not shown,

show that 500  $\mu\text{M}$  AEC completely prevented the germination of soybean somatic embryos; 100

 $\mu M$  AEC was quite effective. Figure 2c shows the use of 0.5 mM, 1.0, mM, 1.5, mM, 2.5 mM

and 5.0 mM concentrations of AEC and illustrates that 1.5 mM AEC is sufficient to kill

proliferating soybean somatic embryos on 1/5th D20 medium (1/5 MS salts, 1/5 B5 vitamins and

20 mg/L 2,4-D).

[0016] Figure 2d, not shown, shows spray studies using major dicot and monocot weeds,

pigweed (Amaranthus retroflexus) and giant foxtail (Setaria faberi) in addition to tobacco. These

experiments using 7 to 10 day old seedlings show 20 mM AEC is lethal to pigweed, foxtail and

tobacco.

[0019] Figure 5, not shown, shows GUS staining of DHPS transgenic embryos.

[0021] Figure 7, not shown, shows regeneration of soybean plants via somatic embryogenesis:

(a) Immature zygotic embryo cotyledon explants on medium containing 40 mg/L 2,4-D (D40

medium), (b) Somatic embryo induction on D40 medium, (c) Somatic embryo proliferation on

D20 medium, (d) Matured cotyledonary stage embryos on medium containing 6% maltose

(MSM6), (e) Desiccation of matured embryos, (f) Germination on medium containing 3%

sucrose (MSO3), (g) Germinated somatic embryo with well defined root and shoot system, and

(h) Regenerated soybean plant transferred to soil.

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